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SURGICAL TREATMENT OF EMPYEMA.*

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Read before the Massachusetts Medical Society, June 3, 1874.

LET me now proceed to the report of the cases, five in all, which I have treated by making free openings. When I performed my first operation, I was not aware that it had been done in this country. In this remark I do not, of course, include cases of *empyema necessitatis*, that is, where the abscess points externally to the ribs, as it has always been the practice to open such.

In a few months, however, after my first case, Dr. J. G. Blake, of Boston, reported four cases which he had successfully treated in this way. See this JOURNAL, June 5, 1873.

CASE I.—Jan. 21, 1873, I was called to see W. F., aged about 25. Constitution good. I drew from the patient and family the following history. Had smallpox or varioloid about Christmas. Ten days previous to my visit, he had a chill, and a stitch in left side, which was followed by cough and fever. "Not believing much in doctors," to quote his own language, no physician had attended him during his illness with smallpox, and none was called at this time. He was, however, well nursed and cared for by his mother. A week from this attack, and two days previous to my visit, he was seized with a pain in his right side. He became so ill and so much alarmed that he wished for a physician, and I was summoned. I found him reclining in bed. Breathing, short and painful; pulse, 110; temperature, 104°. His face was red and well pitted, showing that he had had a copious eruption of smallpox pustules. Auscultation and percussion gave the following results. Over left side and back, low down, moderate dullness, coarse crepitus, and slight ægophony. Over base of right lung, some râles, diminished respiration and increased resonance of voice. Diagnosis, double pleurisy. At this time, there was pain in right, but none in left, side.

Jan. 26th.—Five days later, pulse 100; temperature, 102°. Less pain in side. Increased dullness on percussion over base of right lung, ægophony and bronchial respiration.

Physical signs on left side of chest unchanged. Cough troublesome; expectorates a ropy, dark-colored mucus; has considerable perspiration. Ordered quinine, opiates and stimulants, and a small blister on left side. Patient remained in much the same condition for several days. The effusion into right side increased slowly, and on the 30th,

* Concluded from page 155.

the ninth day of treatment, I applied a large blister under right scapula. I saw no good results from the blister, but, on the contrary, the fever seemed to be increased by it, and the patient was much irritated. Pulse increased in frequency. This effect of the blister, taken in connection with the profuse perspiration, led me to think that I had to deal with something more than simple serous exudation. There was but little change in the condition of patient for a week or more, except that the fluid in the chest steadily but slowly increased. The minutes of the case, made Feb. 9th, ten days later, are these:—

Pulse, 108; temperature, 103.5°; cough, at times, urgent; character of expectoration unchanged, still prune-colored. Profuse night-sweats. Has a smothered sensation in chest. Lies with the shoulders elevated. Flatness on percussion extends nearly to top of right shoulder. Entire absence of respiration over lower half of lung. Inter-costal spaces less marked than on left side. No decided bulging of the ribs. At base of left lung, and extending up to angle of scapula, some crepitus, but respiration vesicular.

Thoracentesis was advised, but patient and friends urged delay. There was but little change for a week or two, and the operation was not performed until the 21st. The patient was much reduced in strength, too much so to sit up. With the advice and assistance of Drs. Martin and Wood, I made the puncture with the small trocar of the Bowditch apparatus, and the point of election was in front, in the fifth intercostal space, midway between the axillary and mammary lines. Three pints of thin pus were pumped off, the patient lying propped up in bed. Severe coughing was induced by the operation, but was relieved by opiates, and the following day he was more comfortable. He improved in strength, and in every respect for ten days. The cough, however, continued troublesome, and the character of the sputa was but little changed. At the end of two weeks, he began to complain of more oppression in breathing, to have more fever and perspiration, and the physical signs gave clear indications of a large re-accumulation of the fluid. I now advised making a free opening, but it seemed to the patient and friends a fearful thing to do. I explained to them the nature of the operation, and gave them the authorities for the proceeding. While admitting, with entire frankness, the novelty of this method of treatment in this country, and also the unfavorable condition of the patient, I urged it with great persistency, believing that it afforded the only reasonable chance of recovery, as another tapping would only give temporary relief. The patient grew steadily worse, and at the end of another week, or three weeks from the time of the first puncture, when in an extreme condition, consent was obtained.

March 15th, I made the opening, assisted by Dr. Gage. The patient reclining in bed, I first thrust in the needle of the aspirator, to make sure of finding pus, and then made an incision two inches long at the same point, viz., the fifth intercostal space between the mammary and axillary lines, and then dissected down to the pleura. When this was reached, I put the forefinger of the left hand upon the lowest rib, so that the finger nail was just above the edge of it, and then passed the point of my knife along the back of my finger, punctured and cut right and left, making an opening corresponding in extent to the outer one. There was scarcely any bleeding, and about three pints

of thick pus flowed out. I did not wash out the cavity at the time, and after matter had ceased to flow freely, I crowded a piece of soft linen into the opening between the ribs. In the evening of the same day, I syringed out the cavity with warm water. There were no indications of shock. The following morning, March 16th, his pulse was 100, temperature 102°. He had taken stimulants freely, and opiates sufficient to relieve the cough in a measure and to procure some sleep. I syringed out the chest night and morning, and he began to improve in every respect. He took nourishment eagerly, and stimulants without measure. Half a pint of brandy and a bottle of claret or hock were daily consumed. On the eighth day, his pulse was 98. Tongue began to clean at the end, cough had diminished, and expectoration was lessened in quantity, but was still discolored. On the evening of the eighth day, I noticed an unpleasant odor to the discharge, and the patient said he did not feel so well. In the morning, I found a great change in his condition. His feet and hands were cold, countenance pinched and pulse feeble. The discharge from the wound was thinner and very offensive. I washed out the cavity with a solution of carbolic acid, one part of the acid to ninety-nine parts of water. I did this night and morning, and prescribed quinine, fifteen grains daily, with ten drops of the muriated tincture of iron every six hours. The patient lay for several days in a desperate condition. The pulse ranged from 130 to 140. By the fifth day, he showed signs of improvement, and on the eighth day, that is, the fourteenth day after the operation, I made the following record: Pulse 116; feet and hands warmer; countenance less sunken; discharge thicker and less offensive.

The fœtor emitted by the decomposition of pus in the pleural cavity seems to me to be peculiar. Like the pathognomonic odor of gangrene of the lungs, once experienced it can never be mistaken. A drop of the pus upon my fingers would give off a nauseous odor for a whole day, in spite of soap and hot water. I have experienced something like this in subsequent cases, but nothing approaching it in degree.

But to return. My patient continued for ten days to improve. The pus became thick and healthy in appearance, but it was at no time entirely free from a nauseous smell. Then suddenly, as by an eruption, the same fœtor returned, accompanied by the same alarming symptoms. No efforts were, however, relaxed, and he received his medicines, nourishment and stimulants with the utmost regularity. I changed from carbolic acid to a solution of permanganate of potassa and to tincture of iodine with iodide of potassium. I saw no advantage in them over the former, and returned to the acid, using a stronger solution: two teaspoonsful of the liquid carbolic acid to a pint of water and an ounce of glycerine. This seemed to work better. The fœtor diminished, and the patient improved accordingly. The cough was persistent, and râles were heard over both apices to such an extent that I feared phthisis. The sputa became light colored. The wound granulated, and the opening daily grew smaller, until it became difficult to wash out the cavity sufficiently. It was easy to pass in the catheter, but the water and pus could not easily flow around it. This made the syringing a slow and tedious process. I tried leaving in a piece of drainage tube, and also a piece of flexible catheter, but both proved unsatisfactory. I therefore

continued, each day, to pass in between the ribs a piece of folded linen, which kept the wound from closing, and I succeeded in washing out the cavity quite well by first inserting a piece of catheter four or five inches long and passing in by the side of it a smaller one, more flexible, through which I forced the carbolic solution. The urine, however, soon became discolored, showing the absorption of the acid. It was clear when passed, but after standing a short time it became almost as black as if ink had been put into it. I observed no bad effects, and continued to use the same strength for several weeks. The discharge was at no time free from a disagreeable odor, but the patient slowly and steadily gained ground. By the 12th of May, two months less three days from the time of the operation, the discharge having nearly ceased and become more or less serous, the opening was allowed to close, which it did almost immediately. This patient continued to cough for nearly two months longer, but at last made a good recovery, and is now in excellent health.

CASE II.—*Empyema necessitatis*.—P. T., admitted to the City Hospital at Worcester, May 22, 1873. The following account is from the hospital records:

"Was well until five months ago, when he fell upon the ice and hurt his left side. Was ill in bed about three weeks. Had pain in the side and coughed severely. He has now free expectoration of yellow mucus and grey pus. Complaints of pain in left side. Appetite pretty good. There is an inflamed tumor, as large as a small orange, on the left lower lateral chest, fluctuating and tender. Patient states that he first noticed a little swelling there about the first of March. One day, a short time after the lump was noticed, he had a severe vomiting turn, after taking castor oil. He felt something give way at that spot, and, soon after, coughed up pus in amount so large as to fill both mouth and nose. At various times since, he has raised pus in considerable amount. There is flatness on percussion, both before and behind, below the line of the nipple, and absence of respiration over same area. Above this, there are dulness and râles."

On the 23d, the day after his admission, I made a free incision into the tumor. The wound discharged freely for several hours after the operation. The cavity in the chest was washed out once or twice daily with carbolic acid, and in three or four days he began to complain of tasting the acid at each injection. This patient was almost immediately relieved of the harassing cough. His breathing was easy and his appetite very good. In three weeks from the date of the opening, the discharge had become quite small in quantity and was thinner. He had gained much in flesh and strength.

June 14th.—Patient was allowed to return home, although the wound was not quite closed. It soon, however, became so, and he was able to resume his usual occupation, which was that of a pedler. He has continued in good health since that time.

CASE III.—L. P., age four and a half years. A scrofulous child. First saw her Jan. 2, 1874. Was informed that late in the autumn she had scarlatina. My advice was sought on account of a discharge from one ear, and from the nose. I was called again on the 7th, when I found her apparently suffering from an influenza, at that time quite prevalent. She was feverish, and had a loose, hoarse cough. Mucous râles were heard over chest. Two days later, I was summoned in

haste, and found her in a convulsion. The following morning, her pulse was 160. Temperature, 105°. Cough, short and painful. Skin, dry. Nervous twitchings. Physical signs were, râles throughout both lungs, some increased resonance of voice near the base of right lung, with diminished vesicular respiration. This little patient lay for the next four days in a most critical condition. Her breathing was exceedingly rapid, and her pulse so frequent and fluttering that it could rarely be counted. This condition of the pulse led the physician, who was called in consultation, to the opinion that there was pericarditis complicating the pneumonia, which we at that time supposed her to have. She was not raised from the pillow, and no attempt was made to auscult the chest. Dulness on percussion was quite well marked under right arm, as she lay in bed. Her death seemed imminent from day to day, and at times from hour to hour. She was kept upon what is known as the supporting treatment, and warm, stimulating fomentations were applied to front and right side of chest, and then covered with rubber tissue. I held firmly to the opinion that the somewhat peculiar condition of the pulse was but the index of the severity of the disease, and the expression of its effect upon the nervous system. I was, however, persuaded to try the effect of digitalis, and the third day after the convulsion I began to give three drops of the tincture every four hours, but continued, also, the carbonate of ammonia, which she was previously taking. I watched her closely, and gave the digitalis for three days, but without any improvement in the condition of the pulse. The temperature fluctuated very much, from 100° to 106°. I now discontinued the digitalis, increased the amount of stimulants, and gave one grain of quinine every six hours. The following morning, the pulse was regular at 160, and the general appearance correspondingly improved. This improvement continued for the next two or three days; the cough became fuller and looser. By the eighth and ninth day, she seemed to cough up a good deal of matter, and to swallow it as young children do. I supposed everything to be going on well. She was exceedingly irritable and nervous, so much so that it was difficult to feel of her pulse, and no attempt was made to examine her lungs. She slowly gained in strength, but had exacerbations of fever, and profuse sweating. This led me to suspect that resolution was not going on as it should in simple pneumonia, and on the twelfth day from the convulsion which ushered in the attack, I requested the mother to take the child from the crib into her lap, which had not been done during her illness, and I then examined her chest. I found complete flatness on percussion over right lung from the base nearly to the apex, absence of respiration, bronchophony over middle and upper lobes. Here was, evidently, an accumulation of fluid. I continued the tonics and stimulants, but she ceased to gain in strength. Her fever turns increased, followed by profuse perspiration. The pleuritic exudations increased, the ribs bulged out, intercostal spaces were obliterated, and the flatness extended to the clavicle. I decided, first, to remove the fluid by the aspirator, although expecting to find pus. This operation was performed Feb. 1st, on the 22d day of the illness. The child was very feeble, and in a very nervous and excitable state, and I feared so much that the fright and pain might produce an unfavorable effect, that I thought it wiser to administer chloroform. Dr. Gage, who assisted

me, concurred in this opinion, and the patient inhaled a little chloroform without any resistance, and was kept lightly under it during the whole operation. More than a quart of pus was drawn out. No paroxysm of coughing, or difficulty of breathing was induced, and the patient slept quietly for half an hour afterwards. The relief was immediate; the temperature fell, the cough lessened and the appetite improved. She ate raw scraped beef, and drank milk punch and broths freely.

This improvement continued for only four or five days, and at the end of a week after the tapping, I decided to make a free opening, which I did, with the assistance of Dr. Leonard Wheeler. The patient was again chloroformed, and an incision made in the fifth intercostal space, between the mammary and axillary lines. Fully a quart of thick pus flowed out at once. I dressed the wound in the usual way. The little girl slept a short time, and then awoke, unconscious of what had been done, complaining only of some soreness of the left side. I washed out the pleural cavity daily with a solution of carbolic acid and glycerine. It was prepared each day, in the following manner. I put a large teaspoonful of liquid carbolic acid and about an ounce of glycerine into a pint of blood-warm water, mixing them thoroughly with a syringe. I introduced a No. 6 gum-elastic catheter between the ribs and injected through this, the fluid flowing out again at each side of it.

On the fifth day after the operation, I made the following record: temperature 100°, pulse 130, countenance brighter, cough less, breathing easy, appetite voracious, eats raw meat with avidity and drinks large quantities of milk punch, egg-nogg and broths.

From this time recovery went on steadily. The daily discharge of thick pus was large in quantity and diminished slowly. Four weeks later, as the discharge was still abundant, I began to use a solution of iodide of potassium with tincture of iodine in place of carbolic acid. After making this change, the discharge diminished more rapidly for the next ten days and the opening became smaller, so that it was more difficult to crowd in the plug of lint as I had done. I therefore took a piece of rubber tubing about the size of a pipe stem and two inches long, and with a needle drew a piece of double linen thread through the edges of one end of it, tying the ends of thread so as to form two loops. This tube I inserted in the opening and fastened the loops of thread upon the outside of the chest with strips of adhesive plaster. This prevented the tube from being displaced. I washed out the cavity every day by passing a very small elastic catheter by the side of the tube into the chest and injected through this, the fluid returning readily through the tube.

I removed the linen plug which I had placed in the end of the tube only once a day. Scarcely any discharge escaped from the wound, so that the side was kept clean and dry. On the 1st day of April, nearly eight weeks from the time of the operation, the discharge having become clear, I removed the tube. The wound closed at once and there was no further discharge. The child was able to sit up for an hour or two, but it was two or three weeks before she was strong enough to walk. At this date, May 26th, she is well. There is but little contraction of the side, and vesicular respiration is audible throughout the right lung.

REMARKS.—This was undoubtedly a case of suppurative pleuritis, following scarlatina. It was better in this case to make the opening in front. If it had been made in the back the patient could hardly have borne the fatigue of the daily syringing. Chloroform was used in preference to ether on account of its great ease in administration, and for the reason that it is not attended with the same risk of syncope in children as in adults.

CASE IV.—L. E., a little girl aged 3 years, 4 months. First saw her June 12, 1874. Was told that she had been poorly for several weeks, the result of a bad cold. Had lost flesh and had a constant cough. I found pulse 128, temperature 101°. Short, dry cough. Physical signs were dulness on percussion over lower part of right lung, absence of vesicular respiration and bronchophony.

The effusion slowly increased. Profuse sweating came on and shortness of breath. By Feb. 1st, the right side of chest was well filled. On the 6th, an attempt was made to draw off the fluid. A small amount of chloroform was administered by Dr. Leonard Wheeler, who assisted me, and the puncture was made in front with the small trocar of the aspirator. Only an ounce or so of thick pus was removed. The stitch of the canula was passed in for the purpose of removing any obstruction, if such existed. The canula was moved in and out and in different directions, but no more pus could be obtained. I felt confident that a large amount of purulent matter must be in the chest, but I decided to desist from further efforts to remove it at that time. The child gained in strength for a week or more, and improved so much in appearance that I was at a loss to account for it. On the first day of March, assisted by Dr. Peabody, I made an opening in front, as in preceding cases, and about a pint of thick pus was removed. Semi-solid masses of matter obstructed the opening, now and then, which I drew out with dressing forceps. I found on the following morning that there had been but little discharge, and that the inner orifice was stopped by a piece of this coagulated matter. Upon removing this, liquid pus gushed out in large quantities, more than on the preceding day. No shock to the system resulted from the operation, and all the indications were favorable. The same local and general treatment was pursued as in the previous cases. The appetite soon became voracious, the child eating greedily almost anything that was given to her, and drinking freely of lager beer and wine. She gained steadily in strength and the discharge diminished in quantity. At the end of three weeks she was able to sit up an hour at a time, and I considered her quite safe. She was at no time so reduced in strength as the other little girl whose case I have just related, and I considered her case more promising from the beginning. On the 25th, the child was feverish, and upon removing the dressing I found the skin around the opening to be inflamed and to have a red appearance like erysipelas. In the evening, I found the redness to be extending in irregular outline inwards and downwards. I surrounded it with a line of tincture of iodine, but in the morning the inflammation had crossed the line of iodine paint and appeared in bright red patches over the liver and reaching nearly to the pit of the stomach. The edges of the wound were gangrenous and the discharge thin and offensive. Pulse very feeble and countenance pinched. Was unwilling to take nourishment or stimulants and had slight vomiting. On the morning of the 27th,

I found her bowels swollen and tender, and vomiting more urgent. Had retained no nourishment during the night. On the afternoon of this day, being the fourth of the attack, she suddenly died in an attempt to vomit.

The cause of this erysipelatous inflammation, and the reason for its rapid progress and for the sudden death of the patient, are questions which I cannot answer satisfactorily to myself.

CASE V.—Mrs. H., aged 28, mother of several children. First called to her April 12, 1874. Found her sitting up and was told that, about two months before, she had a stitch in her side, was feverish, with some cough, and it hurt her to draw a long breath. Kept about the house all the time, but had had cough ever since, and at times pain in right side. At this time she had some fever, a troublesome, dry cough and loss of appetite. Physical signs were flatness on percussion over lower half of right chest and absence of respiration over corresponding area. The usual treatment of blistering, diuretics and alteratives was pursued, and at the end of twelve days, finding that the effusion had somewhat increased in quantity, I thought it better to attempt the removal of the fluid by the aspirator. This was done on the 24th of April, and a quart of straw colored serum was drawn off through the smallest sized trocar. The fluid was darker and thicker than is usual. The patient was relieved in a measure. Cough diminished and appetite improved for about a week. Then more fever and profuse perspiration came on, accompanied by loss of appetite and strength. Percussion indicated a re-accumulation of fluid in right side of chest and the flatness extended higher up. Patient complained of a suffocating sensation, and therefore on the 6th of May, twelve days from the first tapping, I repeated the operation and obtained more than a quart of thin, purulent fluid. The patient breathed more easily, but the fever did not abate, and the cough and profuse sweating continued the same.

Being satisfied that the exudation was rapidly increasing, I decided to make a permanent opening, which was done on the 10th of May, with the assistance of Drs. Wheeler and Marble. This patient was confined mostly to her bed, but was able to sit up for a short time. Therefore I made the opening in the back about two inches below the angle of the scapula and a little towards the side. Three pints of purulent fluid were discharged. The pleural sac must have been very thoroughly evacuated, as the patient coughed a great deal at the time, which always serves to force the matter out. The subsequent treatment was substantially the same as in the preceding cases. Patient was able in two weeks to sit up for two or three hours at a time. There was no fœtor to the discharge and it steadily diminished in quantity. Three weeks after the operation, the wound having healed from the corners and the opening being much contracted, I inserted two rubber tubes, which served the purpose of a double canula. This arrangement has given such entire satisfaction in this case that I shall feel disposed to try it again in preference to the T shaped wire device, described by Dr. Oliver in this JOURNAL,* or to any other contrivance that I have heard of. I obtained a piece of rubber tubing, the size ordinarily used for nursing bottles, and cut from

* Vol. xc. page 421, April 30, 1874.

it two pieces about two inches in length. I passed these in, between the ribs, side by side. Through the outer end of both, on the upper side, I passed a needle, armed with strong linen thread, and left at each end a loop five or six inches long. One of these I carried backward and the other forward, and fastened both down with adhesive plaster. In this way the tubes have been kept firmly in place for ten days. The ends are stopped with small pine pegs, which are removed two or three times daily for the purpose of washing out the pleural sac. This is done with a syringe having a tapering nozzle, which fits into one of the tubes. The injected fluid readily returns through the other tube, washing out the pus. There has been no disagreeable odor from the rubber or from the wound. The patient sits up and walks about the house and convalescence has progressed rapidly. Her husband has been able to syringe out the pleural sac for the last week. The discharge is now very small in quantity, and I presume it will be safe in a week or two to remove the tubes.*

The history of this case serves to indicate what rapid recoveries may be expected in the more favorable cases of empyema. The number of empyemic patients treated in this country after the plan I have endeavored to illustrate, has been too few to enable me to give any statistics of results from which to draw positive conclusions.

The four cases published by Dr. Blake, together with the five that I have reported, make in all nine, eight of which recovered and one died, and that one from an accidental or secondary affection. These few cases, however, serve to confirm the testimony of German surgeons as to the brilliant success that has attended this operation.

A CORRESPONDENT of the *Irish Hospital Gazette* gives an account of an operation performed by Dr. Billroth, of Vienna, for the removal of a tumor from the bladder of a boy twelve years of age. The child had complained of pain in passing water for ten months. The urine was cloudy and contained some mucus and pus. The sound passed readily into the bladder and detected a rough surface, but no calculus. A tumor in the region of the bladder could be distinctly felt through the abdominal walls. It was slightly painful on pressure. It could also be felt upon examination per rectum; its consistence was very much that of a fibroma, and it seemed to spring from the bladder. The walls of the bladder were apparently hypertrophied. As there might be a calculus in a diverticulum of the mucous lining of the bladder, Billroth determined to perform lateral lithotomy, and then, if his supposition was confirmed, and the tumor was adherent to the bladder, to perform the high operation and remove the growth. This was accordingly done, and it was found that the tumor grew from a short and tolerably broad pedicle from the posterior wall of the bladder, and very high up. Although a large opening in the upper wound was made, the tumor was too large to be removed through it, and portions were broken off before the mass of the tumor could be torn from the pedicle and removed. The pedicle was dissected out from the wall by incisions which penetrated nearly to the peritoneum. Drainage tubes were left in both wounds, and the patient has done well since the operation, although the time is not specified. The tumor proved to be a pure myoma.

* The patient has since entirely recovered.

Clinical Lecture.

OVARIAN CYST.

BY CALVIN ELLIS, M.D.,

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THE patient, an Irish widow, 61 years of age, entered the hospital on Oct. 21st, 1873. She has had nine children, the last having been born eighteen years ago. The labors have been natural, and have not been followed by any bad consequences.

She was always healthy till last winter, when she had a discharge of "blood and thick matter" from the rectum. This recurred about once a month, until last month, when it ceased and has never returned.

In April, 1873, she noticed an *enlargement* of the lower part and middle portion of the *abdomen*. This gradually extended upwards, as if she were in the family way. For three weeks after the swelling was first noticed, there was *severe pain* in the lower part of the abdomen. She never noticed any swelling of the face or hands. The *appetite* has been pretty good. The *bowels* have been *constipated*. She has had hæmorrhoids for many years. *Micturition* and the character of the *urine* have been *normal*. The catamenia ceased fourteen years ago, but were previously regular. Pulse 84, normal.

She complains at the present time of *abdominal distention* alone. Our first inquiry must be whether the history furnished will throw light upon the cause.

Though the enlargement followed the cessation of the discharge from the rectum, and as the beginning was accompanied by pain, the subsequent course and present character of the disease do not warrant us in connecting the two.

It is obvious that we must ascertain the *character of the enlargement* before we can settle this question absolutely.

Following the same course of reasoning as in the former cases, we must consider *whether this change of form is caused by some affection of the parietes, or of the contents of the peritoneal cavity*.

The *abdomen* measures forty-two inches in circumference, two inches above the umbilicus, and is *uniformly distended*, but the depending parts are thick and swollen. With the latter exception, the appearances are such as to indicate that the *parietes are distended from within outwards*, and we see that this swollen appearance is caused by *œdema* of the subcutaneous tissue, the parts pitting readily on pressure. We see, also, that there is some *œdema of the lower extremities*. This infiltration of the subcutaneous connective tissue with serum is often an indication of some disturbance of the circulation, or of renal disease, and we do not overlook the possibility of such existing, but we must not be diverted from the examination of the abdomen to consider other parts, as we may find here a sufficient explanation of these superficial changes, and can examine other organs at a later period, if necessary.

On *deep pressure* of the abdomen, marked inequalities of resistance are noticed, the least being just above the umbilicus, the greatest in the left hypochondrium. Still, there is no definite outline, and we can

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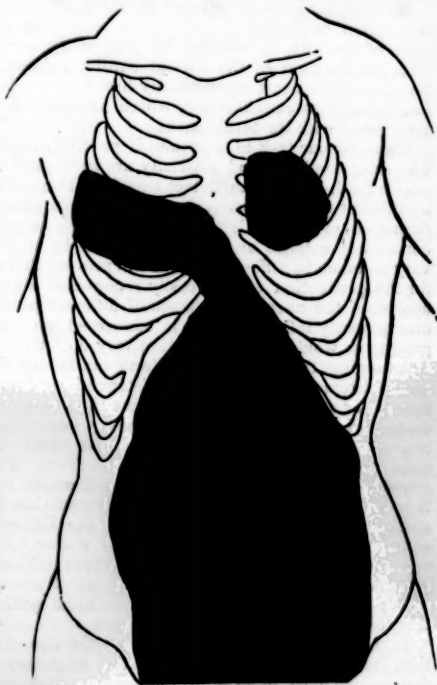
arrive at no precise conclusion in regard to the nature of the contents. We must, therefore, resort to *percussion*.

You notice that the whole abdomen, with the exception of the outer and posterior lumbar regions, is perfectly flat on *percussion*, and that the line limiting this flatness curves inward towards the upper part, as if a rounded body had risen from the pelvic region upwards. You also notice that the resonance of the right lumbar region continues upwards and embraces the hepatic region, while the flatness which usually characterizes the latter is transferred to and occupies only the space comprised between the upper border of the 4th and 6th ribs.

As the ordinary seat of the liver is occupied by the intestines, and that of the lower part of the right lung by some non-resonant matter, the question which at once presents itself is,

whether the liver has been pushed upward, or whether the pleural cavity or the lung is the seat of some disease. The normal character of the pulmonary resonance and respiration as low on the line which marks the flatness, and the absence of all respiratory sound below, show that the lung itself is intact, as it is very exceptional to have both respiration and resonance normal to the very line which marks the change of density when the disease involves the pulmonary tissue.

Behind, we have resonance, showing the presence of the intestines as high as the last rib only, and from this point the flatness extends upward, scarcely above that which belongs to the liver when in its usual seat. Moreover, nothing whatever is heard on auscultation over the flat region, and its outline does not change on change of position. We have, therefore, reason to believe that the flatness is that of a solid body. Though narrower vertically in front than usual, the form is that



of the liver, as is the flat region behind, and we have only to suppose that the organ is rotated upon its horizontal axis by the upward pressure of the abdominal tumor and intestines to explain the variation of form and position described.

On examining the *left side of the chest*, we find an *isolated rounded dull region*, extending from the upper edge of the third rib to the lower edge of the fifth, surrounded by pulmonary or stomachic resonance. This has the form of the normal cardiac dulness, and the sounds and impulse of the heart are distinctly heard here. It is apparent that we have a *large abdominal tumor*, which has pushed aside all the organs interfering with its development.

It is now our task to ascertain, if possible, the *nature of this tumor*. The compressibility and elasticity are so marked that we at once suspect a fluid, but we can detect no fluctuation. This, however, is not a sufficient reason for denying that the enlargement is owing to the formation of fluid. Certain growths, such as ovarian cysts, though containing a large amount of fluid, may be so subdivided, and may vary so much in different parts, as to prevent that movement necessary for the production of this easily recognized sign. We have already spoken of the unequal resistance of different parts of the tumor, and may properly infer that this is connected with such a want of homogeneity as would make fluctuation very doubtful.

Assuming, then, that the liniform outline of the mass indicates a rounded tumor, and that the consistence is such as to show that this is a *sac or an aggregation of sacs*, we must consider what kind of cystic tumors may arise in the lower part of the abdominal cavity. The impregnated uterus might assume such a form, but the age of the patient at once disposes of such a supposition. Fibroid or fibro-cystic growths may originate in the uterus and attain considerable size, but it is very improbable that such would become as large as this tumor, and still more improbable that cysts of the Fallopian tubes or of the uterine appendages would attain such a size. These latter are also much more rare. With the doubt which still clouds our decision, a vaginal examination may be of service. Nothing remarkable is noticed; the uterus is movable and in its usual position; the sound enters the cavity about the usual distance.

Taking into consideration, therefore, the size of the tumor, its situation, its peculiarities and the relative frequency of certain forms of disease, we have, in all probability, *an ovarian cyst*.

The character of the disease and the absence of any special indications of ascites, make it improbable that the œdema of the abdominal walls and of the lower extremities has any other cause than the tumor itself, as the circulation might be interfered with very easily, and such œdema is at times noticed in ovarian diseases. This view is confirmed by the fact that the heart is normal, there have been no indications of disease of the liver, and the urine shows that the kidneys are healthy.

Varicose veins are too common to allow any conclusion to be drawn from their presence, unless it be based upon more significant signs.

Treatment.—As the patient declines any operative treatment, we cannot confirm our diagnosis or give any relief, as far as the disease is concerned, but we can relieve the constipation, and, by good care and nourishment, enable the patient to bear her infirmity somewhat longer.

Progress in Medicine.

REPORT ON OBSTETRICS AND DISEASES OF WOMEN.

By W. L. RICHARDSON, M.D.

OBSTETRICS.

Chloral as an Anæsthetic during Labor.—Dr. Playfair, recognizing the fact that the administration of chloroform during labor is apt to diminish the pains and thus prolong the labor, has, during the last two years, used chloral as a substitute, and with the very best results. He claims for it (*Lancet*, Feb. 21, 1874) that its administration does not in the slightest degree alter the character of the pains, while it does materially lessen the sufferings of the patient. It is rare that chloroform is given until the first stage of labor is fairly concluded, lest its administration should interfere with the progress of the labor. Chloral, however, can be given towards the close of the first stage, and when the sharp cutting pains are so severe as to not unfrequently completely weary and exhaust the patient by hours of almost fruitless suffering. His method of administering the drug is as follows:—A six-ounce mixture, containing a drachm and a half of chloral, is ordered. One-sixth of the mixture (fifteen grains of chloral) is given when the pains become severe. This is repeated in twenty minutes. The patient is usually by that time sufficiently under the influence of the remedy. Its further use must be regulated by the condition of the patient. When it is found necessary to repeat the chloral, half the quantity will usually be found sufficient. Dr. Playfair has never found it necessary to give more than a drachm of the chloral during the whole labor. The use of this remedy does not predispose to *post-partum hæmorrhage*, as is the case with chloroform. The use of chloral in cases of rigidity and spasm of the cervix uteri, has been followed by a marked and speedy relaxation of the tissues.

Diagnosis of Pregnancy.—Dr. Rasch calls attention (*British Medical Journal*, Aug. 30, 1873) to a new method of detecting pregnancy, especially during the first three months. By making a vaginal examination with the fingers it is easy to detect fluctuation in the pregnant uterus. He has himself made out a diagnosis of pregnancy as early as the seventh week, and experiences no difficulty whatever in making it out after the second month. The uterus must be steadied by a hand grasping it through the abdominal walls, while two fingers introduced into the vagina manipulate the uterus. As a rule, the uterus will be found to be anteverted, a position which renders bimanual manipulation all the easier. The fluctuation is best detected at the fundus. Dr. Rarch thinks, also, that sufficient attention has not been paid to the increased desire to pass urine, especially at night, which is not unfrequently one of the earliest symptoms of pregnancy.

Spontaneous Salivation Associated with Pregnancy.—Dr. Archer Farr reports (*Trans. Obstet. Soc. Lond.* xv. 1874) a case in which a lady, the mother of four children, began to salivate profusely when about two months pregnant. The flow of saliva was very great, equalling in quantity, according to her own statement, three pints per diem. The tongue was clean. She complained of pain, and of occasional vomiting

after taking food. The salivation continued, unrelieved by medical treatment, up to close upon the point of her quickening. She was then greatly reduced in strength, and emaciated. The question of inducing premature delivery was discussed. Immediately on feeling the fetal movements, however, she experienced complete relief. All the dyspeptic symptoms ceased, the appetite returned, and the salivary function became rapidly restored.

Prolapse of the Umbilical Cord.—In an article on this subject (*Amer. Jour. Obstet.*, Nov., 1873; Feb. and Aug., 1874), Dr. Engelmann, of St. Louis, gives his conclusions as to the causes and treatment of this dystocia as drawn from a careful examination of a large number of cases (365) occurring either in the Royal Lying-in Hospital of the University of Berlin, or in the out-door department of that institution. Of these cases, 160 were observed very carefully from the beginning to the end, and pelvic measurements made. The frequency of prolapse was found to be 1 in 18 cases of labor. In this country, the frequency would be much less, since here diseases tending to produce a deformity of the pelvis do not abound as in Germany, where these observations were made. A prolapse of the funis rarely complicates vertex presentations, but is frequently found with face presentations, as the result, however, not of the foetal position, but of the pelvic deformity, which tends to produce both the abnormal position and the prolapse. Breech presentations are rarely complicated with prolapse, transverse and shoulder presentation are much more commonly, and foot presentations oftener than any other. The position of the placenta near to the os favors the prolapse of the cord. The unusual length of the cord is probably favorable to the occurrence of prolapse, but cannot be ranked among the causes. The premature rupture of the membranes at an early period of labor is one of the most common causes which tend to favor a prolapse. The chief and primary causes, however, are due to the maternal parts. While a flabby condition of the uterus and a general weakening of its muscular power, as the result of too frequent child-bearing, may tend to produce a prolapse, still the chief cause is undoubtedly to be found in a contraction of the pelvis. The flattened pelvis is the most common pelvic malformation found in these cases. Prolapse is somewhat more frequent among multiparæ than among primiparæ. It is rare that the cord prolapses *after* the rupture of the membranes; ordinarily, the accident occurs at the time of the rupture, although, occasionally, the cord may be felt presenting just within the still unbroken membranes. The prolapse usually occurs at the sacro-iliac fossa, less frequently in the acetabular region. Very rarely is it found to pass down in any region occupied by the occiput, or directly behind the symphysis pubis. The danger to the child comes, of course, from the pressure to which the cord is subjected during the labor, a pressure which is greater in head presentations than when any other part of the child presents. A careful *post-mortem* examination of children, whose death has been caused *inter-partum* by compression of the prolapsed cord, shows no change which could be called pathognomonic. The death is the result of asphyxia, which may occur from many other causes. The prognosis in these cases is most favorable when the feet present. Next come transverse and shoulder presentations, although these are far more dangerous than the first mentioned class of cases, and most dangerous of all are vertex presentations. The prognosis in

breech-presentations is at least equally favorable with that offered by transverse and shoulder-presentations. In a primipara, the prognosis is much less favorable than in a multipara. The life of the mother is, of course, not affected by the prolapse of the cord. It is possible, however, for a serious hæmorrhage to follow the premature loosening of the placenta in those cases where the cord is drawn over the head.

As regards treatment, many cases will occur in which it will not be desirable to leave the progress of the case to nature, nor will it be necessary to perform an operation. In these cases, attention must be given to the position of the mother during labor. She should lie on the side opposite that in which the funis has prolapsed. In cases where the prolapse has taken place in one or the other of the sacro-iliac fossæ, the simply placing the mother on her hands and knees may be all that is necessary for the self-adjustment of the cord. Oftentimes, however, this postural treatment is more an adjuvant to other methods of treatment than a method on which we should place our sole reliance. Version offers the best chance for the child, and should be adopted in preference to either reposition or delivery by forceps. Chloroform has proved a valuable adjuvant in any attempt to effect a reposition of the cord, and should be given so as to cause a complete relaxation of the muscular fibres. Reposition of the cord should be confined, with few exceptions, to cases of prolapse occurring with a head presentation.

Puerperal Convulsions.—In a paper recently read before the Dublin Obstetrical Society (*Dub. Jour. Med. Sci.*, June, 1874), Dr. T. M. Madden discussed the causation, preventive treatment and active treatment of convulsions, which he considered among the most dangerous, as well as the least frequent, of the complications of labor. The writer, after alluding to the various conflicting opinions which have been held by medical men as to the causation of puerperal convulsions, states that he is persuaded that a variety of circumstances have a share in the causation of these convulsions, and that all these various circumstances must be considered of equal account. The disease is connected not only with the state of the uterus itself, but also with that remarkable condition of nervous susceptibility which is peculiar to pregnancy. The cerebro-spinal nervous centres are usually more or less congested, and are irritated by the circulation, through their vessels, of a vitiated blood, containing some non-eliminated *materies morbi* which produces a direct toxic effect on the excito-motor nerve substance of the brain and medulla oblongata, and which stimulates the hyperæsthetic condition just referred to till the latent excitability becomes so intense as to need only the addition of uterine irritation, such as the first pains of labor, to cause those violent reflex muscular spasms, known as puerperal convulsions. It is a remarkable fact that puerperal convulsions generally attack a number of individuals simultaneously, a fact which may be due to some peculiar electrical condition of the atmosphere. Plural births are more frequently complicated with convulsions than are single ones, and first-births than subsequent ones. The presentation is usually natural. If eclampsia occurs toward the end of pregnancy, labor usually follows. If it occurs after labor has begun, the delivery is usually accelerated. Mental impressions, anxiety of mind, sudden shocks, depression of spirits, &c. are all conducive to eclampsia. The classification of puerperal convulsions as hysterical, epileptic and apoplectic may be entirely disregarded. They are a convulsive affec-

tion *sui generis*, peculiar to women who are or have recently been pregnant. Among the premonitory symptoms may be mentioned cedema of the upper extremities, face and eyelids, pain in the lumbar region, and albuminuria. Headache, giddiness, confusion of thought, or a peculiar irritability of temper usually precedes, for a few days, the attack.

The asthenic, or the so-called epileptiform puerperal convulsion, usually commences with a twitching of the muscles of the eyelids and eyeballs, and soon extends to the whole body, the convulsive action being, however, more marked on one side than on the other. In the majority of cases, the patient's state, during the commencement of the attack, is that of vascular depression, rather than of vascular excitement; as the convulsions recur more frequently, the impeded respiration, and consequent non-aëration of the blood, induces symptoms of venous congestion. Thus the disease passes into the stenic or apoplectiform convulsion. In plethoric women, the disease generally presents *ab initio* the apoplectiform character. The face is congested, respiration stertorous, pulse slow and full, limbs placid, and external stimulation produces no reflex action. Gradually, the convulsions cease, and the patient slowly recovers consciousness, or coma becomes more profound, and a violent convulsion closes the scene.

As regards treatment, the peculiar condition of each patient must be considered. Our object, as regards a prophylactic treatment, should be, first, to relieve the kidneys, which is best accomplished by cupping and fomentations over the loins, the free use of diluents, the cautious administration of mild diuretics, and especially of colchicum in small and guarded doses; secondly, to assist nature in her efforts to purify the blood by the use of saline aperients and diaphoretics; thirdly, to soothe the nervous irritability of the patient by the use of sedatives, especially bromide of potash and belladonna.

The indications for the treatment of a case of puerperal eclampsia are—first, to arrest the convulsive action; secondly, to remove the cause of its recurrence.

In all cases, the *primæ viæ* should be unloaded by the administration of calomel and jalap, or by a drop of croton oil. Enemata of assafoetida and turpentine may be used. The head should be shaved if possible, and the back of the scalp freely painted with linimentum cantharidis. A bladder of ice should be laid on the front of the head, and the feet and calves of the legs be enveloped in mustard poultices. In the sthenic form of eclampsia, a cold effusion on the head and face may be employed. Chloroform will be found of great use in many cases. In cases of sthenic puerperal convulsions, the only remedy of undoubted efficacy is venesection. As a rule, however, bleeding should not be resorted to if the pupils are dilated. In all cases where there is a tendency to apoplectiform symptoms, opium is contra-indicated. In every case of convulsion during labor, the delivery of the patient should be at once effected.

M. Fauny has recently published a valuable series of observations on the use of Hydrate of Chloral in Puerperal Convulsions. He claims (*Révue des Sciences Médicales*, 7, 1874) that the use of chloral is followed by better results than are seen after the administration of any other remedy. He advises its use not only when an attack has actually taken place, but in all cases where such an attack is feared.

Dr. Charrier has also reported (*Annales de Gynécologie*, January, 1874) very favorably on the use of this remedy in cases of puerperal eclampsia.

Twin-Pregnancy after Ovariectomy.—Prof. F. Marzolo (*Gazette Médicale de Paris*, 44, 1873) performed, July, 1871, ovariectomy on a woman aged 34. The patient recovered, and about a year afterwards became pregnant. Gestation went on to a normal termination, and she was delivered of twins, the first a girl (head presentation) born after a short labor of only two hours, the second a boy (footling).

Twin-Pregnancy in a Double Uterus.—Dr. Perrault reports (*Lyon Médicale*, August 31, 1873) a case in which a woman, aged 20, was delivered, by means of version and the forceps, of a fœtus. On introducing the hand to remove the placenta, an opening in the fundus uteri was discovered. A second cervix uteri was found opening through this aperture into a superimposed uterus. Through this, a second child was presenting by the shoulder. Version was performed, and a child, weighing 9½ pounds, removed. The woman died of puerperal fever, and no autopsy was allowed.

(To be concluded.)

RABIES MEPHITICA.—Rev. Horace C. Hovey, of Kansas City, Mo., writes to the *American Journal of Science and Arts* concerning a fatal disease which is communicated by the bite of the skunk, and which bears certain resemblances to hydrophobia. The rabid skunk seems to have exhausted his mephitic battery, or else has lost the projectile force by which it is discharged. Perhaps the secretion has been checked by the feverish state of the system; or there may be a causative connection between the inactivity of the anal glands and the generation of malignant virus in the glands of the mouth.

The writer having had his attention called to the disease by an encounter with a skunk, and by the statement of an experienced hunter that the bite of the animal is invariably fatal, opened a correspondence with hunters, taxidermists, surgeons and others, and obtained the particulars of forty-one cases of *rabies mephitica*, occurring in the Western and Southern States. All were fatal except one. Drs. Janeway and Shearer, Surgeons U. S. Army, reported several cases which resulted fatally from the bite of the skunk. Dr. Shearer wrote that he regarded the virus as peculiar to the skunk as the venom of the rattlesnake is to that creature, and not an occasional outbreak as in the case of the wolf or the *rabies canina*. From this opinion, however, Mr. Hovey dissents.

The attack of the rabid skunk is entirely different from the fierce assault of a mad dog. He approaches stealthily while his victim is asleep, and inflicts a deadly wound on some minor member—the thumb, the little finger, the lobe of the ear, one of the alæ of the nose.

The resulting disease resembles hydrophobia more than it does the effects of ophidian venom. The period of incubation is alike in *R. canina* and *R. mephitica*. It is indefinite, ranging from ten days to twelve months. During the incubative stage, no perceptible change takes place in the circulation.

The spasms of the larynx and œsophagus which occur in *R. canina* are wanting in *R. mephitica*. Nor is the hyperæsthesia of the skin, which is so marked in the former disease, present in the latter. In hydrophobia, the perceptions are intensified, but in mephitic rabies there is a positive loss of perception and volition.

The mode of death is by anæsthesia in both forms of rabies; but in that of the dog the frightful struggles of nature to eliminate the poison are more prolonged than in that of the skunk.

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, AUGUST 20, 1874.

AMONG the difficult problems which a rapidly growing community is called upon to solve, there is not one which is more pressingly or promptly brought to the notice of those who bear the responsibilities of government than the necessity for increased vigilance in all matters pertaining to the department of public health. A disregard of this important element in the successful administration of the affairs of a large city is so surely followed, sooner or later, by a striking illustration of the danger of neglecting sanitary laws, that a reform becomes an absolute necessity, and thus a requisite standard is eventually reached, only after experiences of a most distressing nature, entailing much suffering, and seriously endangering the welfare of the community. It is an old and oft-told tale, but, nevertheless, one which, apparently, nothing short of bitter experience enables even an educated and civilized people to profit by. Such, at all events, has been the train of circumstances which has terminated in the organization of a Board of Health adapted to the present needs of our own city.

It is with no small interest, therefore, that we turn to the second annual report of this body, giving, as it does, the record of its first full year of service.

The report opens with an allusion to the smallpox epidemic, the signal success with which this was handled by the Board being more fully treated in the former report; a table is, however, annexed, showing, in the most striking manner, the rapidity with which this terrible disease was overcome. Since the last report, there have been a few cases of smallpox, never more than two, and since March last the city has been absolutely free from the disease. Another field of usefulness which has not been neglected by the Board is the abatement of nuisances similar to the one on the now notorious Miller's River. The rendering establishment on Spectacle Island has been forced to introduce reforms into its manner of carrying on the business, which, although not fully in accordance with the improvements suggested by the Board, will doubtless make a marked change in the character of the effluvia emanating from that establishment. Those who have been obliged to remain in town through the present summer cannot be too grateful to the State and City Boards of Health for the marked contrast in the character of the air pervading the city. It is not to be supposed, however, that all sources of foul odors have been suppressed. Take, for example, the following statement, which ought to arouse the

serious attention of the wealthy inhabitants in the "Back Bay" lands, and induce them to demand a reform which, indeed, has been asked for during many years past, but does not seem to be forthcoming. "At low tide, there are, at least, one hundred acres of flats exposed and bare west of Parker Street, east from Brookline Avenue and south from Beacon Street. And what passes through this sewer? One half of the sewerage of the Highlands." This is but one instance of many cited in the report, which, further on, states: "our beautiful city is almost encircled by the mouths of sewers discharging their contents into shoal water or upon flats, the sewer gases rendering the atmosphere for some distance about the wharves absolutely dangerous to breathe." How often has this fact been pointed out, and the suggestion added that the immediate investigation of experienced engineers is required, and yet no movement that we are aware of has ever been made towards a radical change in the sewerage of the city. We hope the Board will press this matter firmly and persistently until something is done. In this connection comes up, also, the question of the removal of night soil. We have already called attention to the fact that the present method has been abandoned in many cities and a process substituted by which vaults may be emptied at any time of the day or season without offence. The responsibility for the continuance of the present offensive and antiquated method rests, we understand, entirely with the contractors.

Some sensible suggestions are offered on the subject of street sweeping and cleaning. This, although apparently a small matter, when compared with the more evident and serious questions of reform mentioned above, is, nevertheless, of far greater importance than many persons realize, who are in the habit of swallowing clouds of dust, mixed with every sort of impurity, and jolting, as a matter of course, over badly kept roads. We suggest this as a field for work in which the Board has a great opportunity to distinguish itself, and of earning the gratitude of thousands who now do not even know what a properly kept street really is. It is one of those "solid comforts" which old England is wont to brag about, but which we in this country too frequently neglect in favor of what is more showy and attractive to an ignorant public.

The subject of infant mortality is next touched upon. The gravity of this question renders it desirable that it should be thoroughly investigated by those most competent to undertake the task. We should be glad to see this matter discussed rather more from a medical point of view than it has been in the report.

Perhaps one of the most striking and interesting, as well as instructive, features of the report, are the charts accompanying the short chapter on Vital Statistics. The simple expedient has here been resorted to of employing different colors to fill out the squares of the

table, each color representing a different form of epidemic or disease. With these tables, one can see at a glance the ravages made by typhoid fever, consumption, cholera infantum, &c., during the year, without troubling oneself to study out a complicated explanation.

The chart illustrating the actual daily mortality for the whole year, with the meteorological observations for the same period, is a marvel of simplicity and ingenuity. Such a record, preserved through a series of years, cannot fail to be productive of interesting results.

Accompanying the report, are interesting papers by Dr. W. L. Richardson and Dr. F. W. Draper, and a series of chemical analyses of articles liable to adulteration, by J. M. Merrick, B.Sc.

Dr. Richardson has devoted himself to the study of tenement houses, an important subject, inasmuch as over one fifth of the population of Boston are housed in this way. The thorough manner in which he handles this subject is made apparent from the interesting details given in his article, and we cordially commend it to the perusal of owners of real estate in parts of the city where tenement houses abound. The reader is strongly impressed with the importance of great care in the construction of vaults, drains and cesspools; a diagram showing an improved method of constructing the latter is annexed, although the writer thinks it is doubtful whether cesspools should be allowed at all in large cities. An important element in the construction of drains and cesspools is the ventilation of the same, which is strongly insisted upon. Dr. Richardson calls attention to the excellent work done by the Boston Coöperative Building Company in building houses of this class. The same experiment has been carried out with perfect success, by Miss Octavia Hill, in England, who has not only redeemed large sections of crowded cities, but has received a very profitable income from the money invested in her charitable enterprises.

Dr. Draper, in his article on the registration of mortality in Boston, points out the various sources of error in the registry of death under the system which has for the last thirty years been in vogue in this city. Among the most important of these is "the carelessness or indifference of physicians, who certify causes without proper discrimination." The office of registrar should be subordinate to the health commission; moreover, the registration officer should be a medical man. A stimulus would thus be given to the profession to be more careful in their returns, and much valuable work might at the same time be accomplished in what has been shown by many eminent men to be an interesting field for medical research. We have already urged a reform in this department in our pages, and we are glad to see the question dealt with by one well qualified to appreciate its importance.

It will be seen that the Board has been alive to the importance of the work entrusted to their charge. The benefits to be derived from

such an intelligent administration of our sanitary department are incalculably great, and both the Board and the city are to be congratulated upon the successful working of the new organization.

From a literary point of view, it might be said of the general report of the Board that it does not partake of that simplicity of style that one would prefer to see in such a document. We note also the absence of an index to the book. We are, however, not disposed to be too critical where such good work has been done otherwise.

A COMMUNICATION, on another page, on the subject of Temperance in Massachusetts, is interesting at the present time in view of a renewal of the contest over the "prohibition" question in the coming autumn political campaign, pointing out as it does some of the expedients resorted to in times past for a solution of this difficult problem. We would particularly commend the perusal of the passages quoted to the ardent supporters of the present State policy in regard to temperance. It may serve to remind them that they may not be the only champions of temperance now in the field; that there are others who have this cause quite as warmly at heart, but who do not feel justified in employing such radical and questionable means of accomplishing their ends.

THE AUTOMATIC MAN.—Under this appellation is given, in the *Gazette Hebdomadaire* of July 17, a curious case which has come under the observation of Dr. Mesnet, of the St. Antoine Hospital. A young man, during the late war, had a portion of the left parietal bone, about eight centimetres in extent, carried away by a ball. Hemiplegia of the right side was the result, but this gradually disappeared. For some time past he has been subject to attacks, lasting from twenty-four to forty-eight hours, attended by very extraordinary phenomena. During these, he seems to act like an automaton, walking continually, incessantly moving his jaw (*machonnant*), knitting his brow, and appearing absolutely insensible to all that surrounds him. Not uttering a word, he walks straight forward, and when he meets with an obstacle stops short, explores it with his hand, and tries to pass on one side of it. Surrounded by a circle of persons, he stops at each and endeavors to pass by the intervals formed by their joined hands, then turns back, comes in contact with the next person and resumes his round. All this time he never manifests the slightest consciousness, just as if he were in a state of somnambulism. He is absolutely insensible to pain, so that pins may be thrust through the cheeks or into the fingers, or very powerful electric shocks may be administered without the slightest sensibility being manifested. What, however, is very remarkable is, that by bringing him into relation with certain objects we are enabled to determine in him the entire series of acts which are correlated with the sensation thus aroused. Thus, if a pen be placed in his hand, he seeks for ink and paper and writes a letter in a good hand, in which he speaks very sensibly about matters that concern him. If a leaf of cigarette paper is placed in his hand, he feels in his pocket for the tobacco, rolls up the cigarette very adroitly, and, having found his match box, lights it. If the match be extinguished just as it reaches the cigarette, he finds another, and that several times, till he is allowed to light his cigarette. If, at the moment when the match is extinguished another already lighted is presented to him in its place, it is impossible to induce him to light his cigarette by the substituted match. He allows his moustache to become burned without offering any resistance, but will not employ the light thus presented to him.

Among the various experiments devised by Dr. Mesnet, there is one which is particularly curious. The young man is a singer at concerts by profession, and if gloves be placed in his hands he immediately puts them on, and searches for paper. When a roll of this resembling music in form is given him, he places himself in the proper position and begins to sing. It would seem, in fact, that tactile sensation induced in him becomes the point of departure, and as if of escape of a series of acts correlated to their initial sensation—acts which he accomplishes automatically, without letting them deviate from their habitual and regular succession. Lastly, it is noted that, while in this singular condition, the patient steals all that comes within his grasp. If he touches any person, he feels for his watch-pocket, and invariably detaches the watch and puts it in his own pocket, from whence it may be removed without his making the slightest opposition. The crisis once over, he has no recollection whatever of what he has been doing, and becomes again perfectly reasonable.

The questions that such a case must give rise to for the reflection of the physician and physiologist are striking. How, indeed, is such a fact to be characterized? And what idea is to be formed concerning the modifications of the functions of the nervous system which it exhibits? A no less interest must be felt by the medical legist, for evidently during these crises such an individual must be absolutely irresponsible. But how, under similar circumstances, are the facts to be ascertained?

What precedes is a mere sketch of some of the features of this curious case. Dr. Mesnet, armed with all the resources derived from a consummate experience in the study of mental diseases, has had it for some time under consideration, and will immediately publish a memoir upon the subject.—*Medical Times and Gazette*, July 25, 1874.

Correspondence.

TEMPERANCE IN MASSACHUSETTS.

MESSRS. EDITORS.—The reproach of intolerance has so often been cast at our sturdy New England ancestors that we have almost come to look upon them as personifications of that unamiable quality. Such denunciations, however, will not always bear the test of investigation, and I wish now—during the temporary lull in the discussion of prohibitory and license laws—to call attention to the moderate, sensible, and eminently wise spirit evinced by our grandfathers and fathers in their efforts to limit the pernicious effects of intemperance.

My first evidence shall be taken from the statutes of the State of Massachusetts, the same volumes whose pages are now bedizened by the vain glories of a futile and irrational prohibitory law.

In the "Laws of the Commonwealth of Massachusetts, Vol. II., Boston, 1789," may be found the following:—

"An Act to encourage the Manufacture and Consumption of Strong-Beer, Ale, and other Malt Liquors.

"Whereas the manufacture of Strong-Beer, Ale and other malt liquors will promote the purposes of husbandry and commerce by encouraging the growth of such materials as are peculiarly congenial to our soil, and climate, and by producing a valuable article of exportation; and whereas the wholesome qualities of malt liquors greatly recommend them to general use, as an important means of preserving the health of the citizens of the Commonwealth, and of preventing the pernicious effects of spirituous liquors:

"Be it therefore enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, that all Brew-houses wherein shall be made and produced for sale annually a quantity of Strong-Beer, or Ale, not less than one hundred barrels, of thirty-one and a half gallons each, beer measure, with the utensils employed in such Brew-houses, and the immediate dependencies thereof, also all monies and stock of

every kind employed and improved in such Brew-houses, with the Strong-Beer, Ale, and other Malt Liquors which shall be there made, and purchased as aforesaid, with the faculty or annual profit of such manufacture, shall be, and they hereby are exempted from all taxes and duties of every kind for the term of five years next after the passing of this Act.

"[This Act passed June 22, 1789.]"

This act expired by limitation, and no new effort appears to have been made in the following years to control, by legislative enactment, the baleful effects of over-indulgence in spirituous liquors. From this fact it might be hastily inferred that our ancestors were disappointed at the result of their legislation. This assumption is, however, untenable, for the leading philanthropists of the same generation, who voted for this law, banded themselves together, twenty odd years later, into a "Society for the Suppression of Intemperance," which, in the second article of its constitution, pledged itself to the very same persuasive measure contained in the above law. The article ran as follows:—

"The object of the Society is to discountenance and suppress the too free use of ardent spirits and its kindred vices, profaneness and gaming, and to encourage and promote temperance and general morality. . . . Is it not practicable for labouring people and those who employ labourers to substitute for daily use good and wholesome drinks in the place of pernicious liquors and for all classes of people to refrain from the practice now so general of offering ardent spirit to all who come into their houses?"*

Even the divines of the day did not hesitate to advocate the same lenient but feasible course. The Rev. Andrew Nichols, of Danvers, puts the case so forcibly, in an address to this Society, that I will borrow an argument from him:—

"Notwithstanding my opinion of the use of strong drinks generally, I am now about to recommend the more extensive cultivation of fruits from which, by the addition of sugar, excellent wines may be fabricated, as the most certain means of lessening the prevalence of intemperance. We have to deal with mankind as they are, not as they should be. The taste and appetites of the present generation are already so far vitiated that to expect them to use nothing but the most salutary beverage, cold water, would be altogether chimerical. . . . Therefore the divine may preach, the moralist reason, and the physician lecture as to the destructive effects of ardent spirits, and still the multitude will continue to quaff the liquid poison until they are furnished with something more innocent, which is equally agreeable to the taste and gratifying to the appetite."†

A note, appended to the address, gives directions for making domestic wines from currants, gooseberries, elderberries, &c., which wines, it must be borne in mind, are not "syrups," but contain quite as much alcohol as the lighter imported wines of France or the Rhine.

Citations might be multiplied indefinitely to show that there has ever been a strong undercurrent of common sense pervading our community and frequently finding utterance by the mouth of one or another of our leading men. One of the most vigorous protests against the folly of the hour emanated from our great war-Governor Andrew, and was made the subject of so eloquent a tribute by the Rev. J. P. Thompson, of New York, that, at the risk of being tedious, I will introduce his remarks:—

"And, I am bold to say here, though perfectly aware that, in saying it, I shall make myself liable to misconstruction and misinterpretation in certain quarters, I am bold to say, that of late years, no argument of statesmanship has been submitted in the hearing of the people of these United States more sound, more true, more certain to commend itself in the long run, to the intelligence and conscience of the American people than the very argument

* The Constitution of the Massachusetts Society for the Suppression of Intemperance, published on the Anniversary of the Society, May 28, 1813.

† Address of the Rev. Andrew Nichols to the Society for the Suppression of Intemperance, April 27, 1819.

which I hold in my hand—the last great plea of Gov. Andrew, for which he suffered no little verbal abuse; his argument in the Representatives' Hall, in Boston, against the 'Errors of Prohibition,' an argument as sound in the interest of morality as in the interest of legislation; an argument of wonderful grasp of facts, an admirable marshalling of fact and opinion from learned sources touching the question at issue; an argument founded upon deep, broad principles, of the very highest morality, proceeding from a thoroughly conscientious soul, and imbued with the spirit of religion. And, though I have been of this way of thinking for very many years, an argument which has brought new conviction to my mind upon these points—that we cannot absolve ourselves from the great duty that the Creator has imposed upon us of maintaining our virtue and morality in a personal contest of will against the temptations of the world; that we cannot absolve ourselves from that and take refuge under a statutory morality, enforced, enjoined by the voice of the majority. An argument showing that it is not the function of a government to regulate all domestic and private life, nor the function of a republic to assume to be a Theocracy, and then to enact, as in the name of God, laws which He did not see fit to enact under the Mosaic Theocracy.”*

We who have lived to see an aggressive, domineering enactment imposed upon the people by the voice of a fanatic majority, and, not only its utter failure to accomplish the aims in view, but also the open violation of all laws which it has bred in our community, are ready to recognize the impolicy of interfering with the personal rights of the individual. There is not one of us, however, but is fully alive to the misery and degradation springing from drunkenness, and we would, one and all, coöperate in any attempt to lessen these evils, which was adapted to beings who are still subject to the wants, passions and weaknesses of humanity.

JAMES R. CHADWICK, M.D.

* Union League Club of New York. Proceedings in reference to the death of Governor Andrew, Nov. 11, 1867.

NOTES AND QUERIES.

DR. LATHAM says, in the *Lancet*, that “the patient's tongue may be moist and clean, his appetite ravenous, and the typhoid ulcers unhealed. The thermometer alone will tell this, ranging from 100° to 101°.”

Not always. I have known severe ulceration to continue, with nearly or quite normal temperature of the body.

THERMOMETER.

MORTALITY IN MASSACHUSETTS.—Deaths in sixteen Cities for the week ending August 8, 1874.

Boston, 219; Worcester, 25; Lowell, 25; Milford, 4; Chelsea, 10; Cambridge, 48; Salem, 12; Lawrence, 9; Springfield, 15; Lynn, 9; Gloucester, 6; Newburyport, 4; Somerville, 8; Fall River, 40; Haverhill, 6; Holyoke, 10. Total, 450.

Prevalent Diseases.—Cholera infantum, 150; consumption, 57; diarrhoea and dysentery, 27; typhoid fever, 20.

F. W. DRAPER, M.D.

Secretary pro tem. of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, August 15, 220. Males, 117; females, 103. Accident, 8; apoplexy, 4; inflammation of the bowels, 5; bronchitis, 3; inflammation of the brain, 1; disease of the brain, 4; cancer, 4; cerebro-spinal meningitis, 1; cholera infantum, 85; cholera morbus, 1; consumption, 18; convulsions, 4; cyanosis, 2; debility, 4; diarrhoea, 6; dropsy of the brain, 2; drowned, 1; dysentery, 4; diabetes, 1; scarlet fever, 2; typhoid fever, 10; gangrene, 1; gastritis, 1; disease of the heart, 4; disease of the hip, 1; intemperance, 1; disease of the kidneys, 2; disease of the liver, 1; inflammation of the lungs, 2; marasmus, 10; malformation of the heart, 1; old age, 6; ovarian disease, 1; paralysis, 3; premature birth, 4; peritonitis, 1; puerperal disease, 2; disease of the spine, 1; scrofula, 1; teething, 1; tumor, 1; tabes mesenterica, 1; umbilical hæmorrhage, 1; whooping cough, 2; unknown, 1.

Under 5 years of age, 139; between 5 and 20 years, 9; between 20 and 40 years, 27; between 40 and 60 years, 24; over 60 years, 21. Born in the United States, 181; Ireland, 22; other places, 17.